



### **Whitelined sphinx**

Most, but not all, sphinx moths feed like hummingbirds. The most commonly observed hummingbird moth is the whitelined sphinx, *Hyles lineata*, so named for the broad white stripe running diagonally to the outer tip of each front wing. This is a stout-bodied, brown moth with a wingspan of 2.5 to 3.5 inches. The delicate pink coloration of the hind wings is visible when the moths are hovering at flowers. Whitelined sphinx moths are as likely to fly during the day as they are at twilight.

The caterpillar of the whitelined sphinx is a large hornworm that varies from bright green to almost black. A series of colorful yellow markings resembling eyespots line the length of the body. Very few people ever notice this caterpillar in spite of how common and abundant the moths can be in late summer. They have been seen on *Portulaca* plants, both the ornamental moss-rose and the common weed purslane. Reference books list a wide diversity of plants as possible hosts, including apple trees “and other herbs and trees.”

### **The “real” hummingbird moth**

Only one sphinx moth, uncommon to Iowa, officially carries the name of hummingbird moth. The “hummingbird clearwing moth” is one of several moth species that lose most of the scales that cover and color the wings. As a result it resembles a very large wasp. The hummingbird clearwing is found in open woodlands and nearby fields.

### **For more information**

If you want to learn more about horticulture through training and volunteer work, ask your ISU Extension office for information about the ISU Extension Master Gardener program.

For more information on selection, planting, cultural practices, and environmental quality, contact your local Iowa State University Extension office or visit one of these ISU Web sites:

ISU Entomology—  
<http://www.ent.iastate.edu>

ISU Extension Publications—  
<http://www.extension.iastate.edu/pubs>

ISU Horticulture—  
<http://www.hort.iastate.edu>

Reiman Gardens—  
<http://www.reimangardens.iastate.edu>

Prepared by Donald R. Lewis, extension entomologist, and Diane Nelson, extension communication specialist. Illustrations by Mark Müller with design assistance from M.J. Hatfield.

File: Entomology 2-1

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Stanley R. Johnson, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa. 7/03

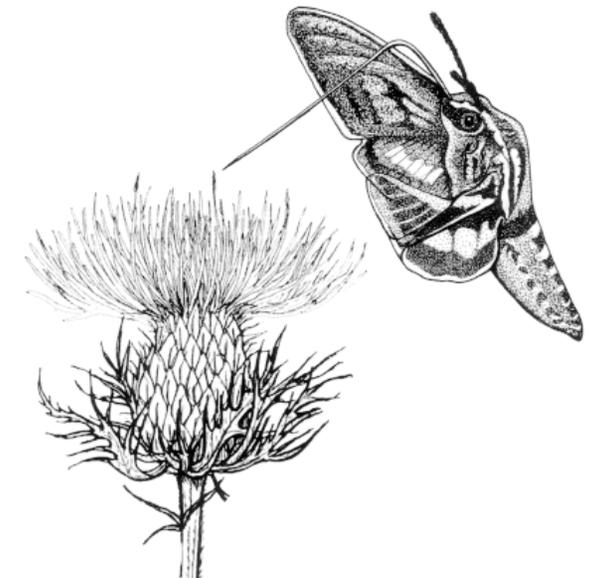
#### **... and justice for all**

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

RG 210 January 2002

REIMAN  
GARDENS  
IOWA STATE UNIVERSITY

# Sphinx Moths



IOWA STATE UNIVERSITY  
University Extension

Late summer is the time to enjoy a fascinating insect behavior in the home garden—nectar feeding by large, dark moths that look like hummingbirds. This activity usually occurs around dusk, but may happen at other times of the day as well. Blossoms commonly visited are deep-throated flowers such as petunias and hosta blooms.



The moths in question have a body about the size of a hummingbird but no other physical resemblance to hummingbirds. What is remarkable is how much they behave like hummingbirds. These moths hover in mid-air and flit from one flower to the next. If you don't look closely at the dark color and the antennae at the front of the head, you can be easily fooled into believing these really are hummingbirds!

### Sphinx moths

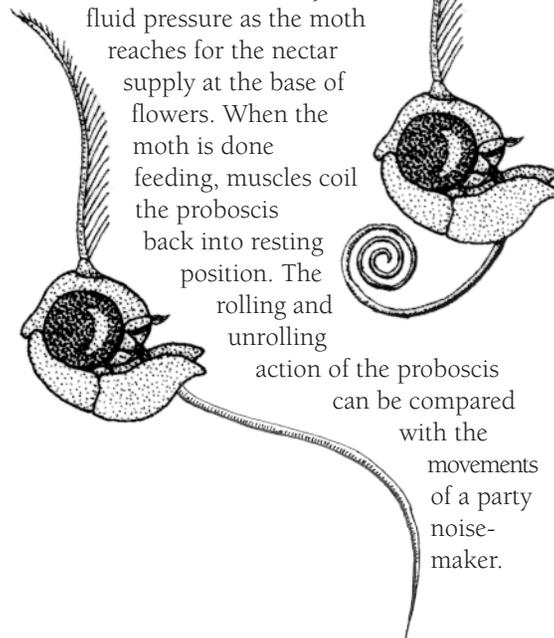
The nickname “hummingbird” moth applies to several different species of sphinx moths—also known as hawk moths—from the family Sphingidae.

These are medium- to large-sized moths with a large body and characteristic narrow, elongated front wings. The wings have the shape of a

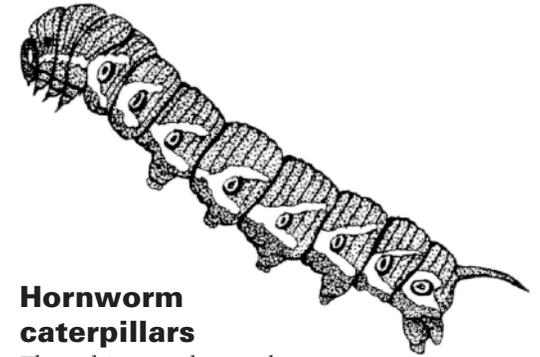
wide, flat triangle ending in an acute angle at the farthest point. Sphinx moths may have a wingspread of up to 6 inches though a more common size in Iowa is a 2- to 4.5-inch wingspan. Approximately 125 different species of sphinx moths are found in the United States and Canada.

Sphinx moths are strong fliers with a very rapid wingbeat and a corresponding “hum.” They are capable of hovering in mid air for extended periods and flying just in front of flowers as they sip nectar through their extended proboscis. A tiny amount of nectar is withdrawn during a brief visit to each flower.

These moths have a well-developed proboscis that is an extendable, beak-like hollow tube or tongue that may be several inches in length and often as long or longer than the moth's body. When not in use the proboscis is coiled against the underside of the head. The tightly spiraled proboscis is extended and held stiff by internal



fluid pressure as the moth reaches for the nectar supply at the base of flowers. When the moth is done feeding, muscles coil the proboscis back into resting position. The rolling and unrolling action of the proboscis can be compared with the movements of a party noise-maker.



### Hornworm caterpillars

The sphinx moths are the adult stage of the hornworm caterpillars, named for the conspicuous “horn” or spine-like projection on the topside of the last body segment.

The horn on a hornworm may look dangerous but it is harmless and the caterpillars do not hurt us. What they do to our garden and ornamental plants, however, often is very destructive. Caterpillars such as the tomato hornworm and the catalpa hornworm are occasionally serious pests because of their voracious appetite for leaves.

The sphinx moth name for the adults of this group probably refers to a characteristic pose of some hornworm caterpillars. When disturbed, the caterpillars will elevate the head and thorax from the plant surface and assume a stance that vaguely resembles the Sphinx of Egypt.

When fully grown most hornworm caterpillars burrow into the soil and become a hard, shiny brown pupa.

